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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,428	10/16/2003	Hee Jeong Kim	2080-3-186	7974

7590 05/04/2006

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EXAMINER

NGUYEN, TAN QUANG

ART UNIT PAPER NUMBER

3661

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/687,428	KIM, HEE JEONG	
	<b>Examiner</b>	<b>Art Unit</b>	
	TAN Q. NGUYEN	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006 and 10 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAIL ACTION

### *Notice to Applicant(s)*

1. This office action is response to Request for Continued Examination (RCE) filed on March 10, 2006. The previous not entered amendment filed on February 27, 2006 has been entered. As per request, claims 1, 10, 11 and 18 have been amended. Thus, claims 1-20 are still pending.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 6-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al. (5,687,083) in view of Namba et al. (5m,739,772).

4. As per claim 10, Kishi et al. disclose the invention as claimed which includes means for checking an intersection network to create a predetermined intersection based on a vehicle position information, wherein the predetermined intersection includes an approaching road 100 and a plurality of departing roads 102 (see figures 1, 3, and column 4, lines 50-54), means for creating a turn guide arrow to be displayed on the intersection, and means for simultaneously displaying the intersection and the turn

guide arrow created thereon (see figure 3 and the related text). In the figure 3 of the Kishi et al. reference, the approaching road direction is placed in the north, i.e. the relative angle between the approaching road direction and the north direction is zero, for easy to follow. However, in the situation of displaying the real direction in related to the north direction, as shown in figure 2 of the Kishi et al., such display of the intersection in which the approaching road having a relative angle with the north can be displayed in order to the user to visualize the real approaching road with the north direction up as shown in figure 2.

5. Kishi et al. do not explicitly disclose the shape of the turn guide arrow corresponds to an angle between the approach road and one of the plurality of departing road. However, such limitation is old and well known at the invention was made and shown in at least figure 14 of the Namba et al. reference. It would have been obvious to an ordinary skill in the art to incorporate the teaching of the Namba et al. into the system of Kishi et al. in order to provide a better view of the intersection guidance for the user with an arrow guide corresponds to the intersection.

6. As per claim 11, Kishi et al. also disclose that the system includes means for calculating the angles of the approaching road and the other departing roads (using the predetermined set direction as the approaching road), and means for vertically placing the approaching road and the other departing roads on the display (see at least figures 3 and 5).

7. As per claims 14-17, the limitations are inherently disclosed in the Kishi et al. reference in at least figures 1, 3, 9, 12(a) to 12(e).

8. Claims 1-4 and 6-9 are method claims corresponding to apparatus claims 10-17. Therefore, claims 1-4 and 6-9 are rejected for the same rationales set forth for claims 10-17.

9. As per claim 18, the limitations of this claim have been noted in the rejections above. They are therefore considered rejected as set forth above.

10. Claims 5, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al. and Namba et al. as applied to the claims above, and further in view of Hulverscheidt et al. (6,762,696) and the related art in figure 1C of the present application.

11. Kishi et al. and Namba et al. disclosed the claimed invention as discussed above except for the turn guide arrow is arranged with a lower arrow, a center circle, an upper body and a head, and the width is adjustable with color changing. However, Hulverscheidt et al. suggest a routing display for navigation system in which a turn guide arrow is displayed which has a lower body, a circle, an upper part and a head as shown in at least figures 3a-3c. Hulverscheidt et al. further suggest that the width of the arrow turn is adjustable with color change (see at least figures 3a-3c and the related text, and claim 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such teaching of Hulverscheidt et al. into the combined system of Kishi et al. and Namba et al. in order to provide the system with the enhanced capability of improving the visual impression display for the user about the approaching intersection with more detail. It is noted that the Kishi et al. and Hulverscheidt et al. do not disclose the width of the center circle is identical to a width of the upper body and the lower body. However, such feature is obvious together with the figure 14 of Namba et al. and at least figure 1C of the present application to provide a finer arrow for the user.

**Remarks**

12. All claims are rejected.
13. Applicant's arguments filed on February 27, 2006 have been fully considered but they are not deemed to be persuasive.
14. Upon the amended claims, which includes new features, the new ground of rejection has been set forth as above.
15. The following reference is cited as being of general interest: Ohdachi et al. (2003/0078729).
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Q. Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

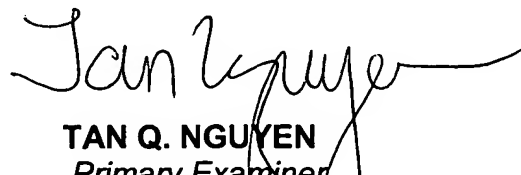
Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
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or faxed to the Official Fax Center: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/tqn  
April 28, 2006

  
**TAN Q. NGUYEN**  
Primary Examiner  
Art Unit 3661